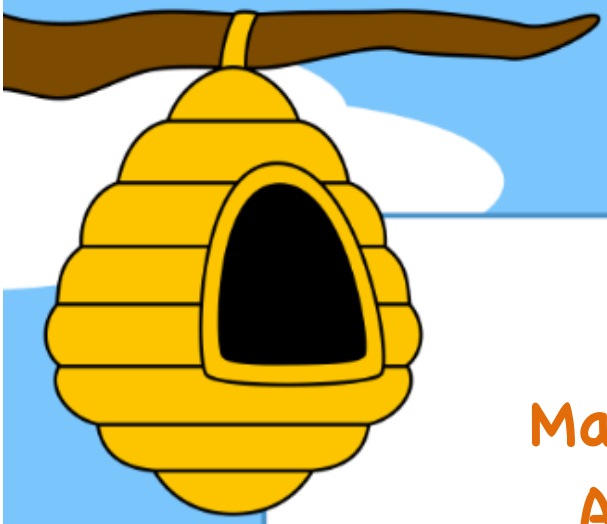

Math Center Activities for Decomposing Numbers From 1 to 10

Animal Theme

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Notes for the Teacher

I designed these activities for use in math centers. They also can be used with your whole class—students can work individually, in pairs, or in small groups.

Goals for Students

1. Students learn how to decompose numbers from 1 to 10.
2. Students learn how to find all pairs of numbers that sum to a given number.
3. Students learn how to write addition equations that represent a particular decomposition of a given number.
4. Students learn their basic addition facts with sums from 1 to 10.

Common Core State Standards for Mathematics

1. Grade K:
    - K.OA.3: Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).
2. Grade 1:
    - 1.OA.5: Relate counting to addition. . .
    - 1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. . .
    - 1.OA.7: Understand the meaning of the equal sign. . .
3. Grade 2:
    - 2.OA.2: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Contents

There are five activities in this product:

1. Bear cubs curled up in a cave or climbing a tree
2. Bees busy in a hive or buzzing around flowers
3. Ducks swimming in a pond or waddling in the grass
4. Ponies prancing in a pasture or standing in a stable
5. Turtles swimming in a stream or lounging on a log

Each of the five activities has three types of pages:

1. One scenery page
    a. Cave and tree
    b. Hive and flowers
    c. Pond and grassy field
    d. Pasture and barn
    e. Stream and log
2. One page of animals, each of which corresponds to a scenery page
    a. Bear cubs (cave and tree)
    b. Bees (hive and flowers)
    c. Ducks (pond and grassy field)
    d. Ponies (pasture and barn)
    e. Turtles (stream and log)
3. Ten corresponding worksheets, one each for the numbers 1 to 10

<u>Preparation</u>

1. Print the scenery pages. To make them more durable, you can print them on card stock and/or laminate them.
2. Print the pages of animals and cut on the dotted lines to cut them apart. To make them more durable, you can print them on card stock and/or laminate them.
3. Print the worksheets. If you want the worksheets to be consumable, then print them on regular paper and have students write on the paper. If you want the worksheets to be reusable, then either print them on card stock and laminate them or print them on paper (or card stock) and slip them into plastic sleeves. Students are to write on them with dry erase markers, which can then be erased.

<u>Directions for the Activity</u>

Each student or group of students will need:

1. One scenery page (e.g., cave and tree)
2. One (or more) of the corresponding worksheets. You can decide what number(s) you want the students to work on or you can let them choose.
3. Some (from 1 to 10) of the animals. Students will need the number of animals that corresponds to the number on their worksheet. For example, if the student is working on the “5” worksheet, the student will need 5 animals.

What the students do

1. The students place some of the animals on one of the two objects in the scene (e.g., the cave) and the rest of the animals on the other part of the scene (e.g., the tree).
2. On the worksheet, the students write the corresponding numbers on the appropriate blanks in the first addition equation.
3. The students rearrange the animals in the scenery, keeping the total number of animals the same but changing the number of animals on each of the two objects.
4. The students write the two numbers corresponding to this new arrangement on the appropriate blanks of the second equation.
5. The students repeat this process until either they have found all possibilities, in which case all of the equations on the worksheet will be completed, or until they cannot find any new combinations.

Answers

Note: Students' equations do not need to be in the order shown below. It is a sign that the students are progressing when they increase or decrease the quantities by one to get the next equation.

1

0 + 1 = 1
1 + 0 = 1

2

0 + 2 = 2
1 + 1 = 2
2 + 0 = 2

3

0 + 3 = 3
1 + 2 = 3
2 + 1 = 3
3 + 0 = 3

4

0 + 4 = 4
1 + 3 = 4
2 + 2 = 4
3 + 1 = 4
4 + 0 = 4

5

0 + 5 = 5
1 + 4 = 5
2 + 3 = 5
3 + 2 = 5
4 + 1 = 5
5 + 0 = 5

6

0 + 6 = 6
1 + 5 = 6
2 + 4 = 6
3 + 3 = 6
4 + 2 = 6
5 + 1 = 6
6 + 0 = 6

7

0 + 7 = 7
1 + 6 = 7
2 + 5 = 7
3 + 4 = 7
4 + 3 = 7
5 + 2 = 7
6 + 1 = 7
7 + 0 = 7

8

0 + 8 = 8
1 + 7 = 8
2 + 6 = 8
3 + 5 = 8
4 + 4 = 8
5 + 3 = 8
6 + 2 = 8
7 + 1 = 8
8 + 0 = 8

9

0 + 9 = 9
1 + 8 = 9
2 + 7 = 9
3 + 6 = 9
4 + 5 = 9
5 + 4 = 9
6 + 3 = 9
7 + 2 = 9
8 + 1 = 9
9 + 0 = 9

10

0 + 10 = 10
1 + 9 = 10
2 + 8 = 10
3 + 7 = 10
4 + 6 = 10
5 + 5 = 10
6 + 4 = 10
7 + 3 = 10
8 + 2 = 10
9 + 1 = 10
10 + 0 =10

1

One bear cub is curled up in the cave or is climbing the tree.

Number of bear cubs curled up in the cave

Number of bear cubs climbing the tree

_____ + _____ = 1

_____ + _____ = 1

2

Two bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave

Number of bear cubs climbing the tree

_____ + _____ = 2

_____ + _____ = 2

_____ + _____ = 2

3

Three bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree		
_____	+	_____	=	3
_____	+	_____	=	3
_____	+	_____	=	3
_____	+	_____	=	3

4

Four bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree		
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4

5

Five bear cubs are curled up in the cave or are climbing the tree.

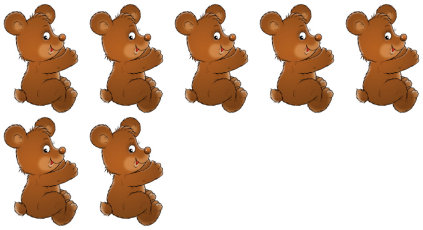
Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree		
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5

6

Six bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree		
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6

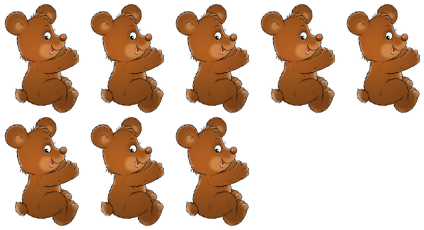
7



Seven bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree		
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7

8



Eight bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree	
_____	+	_____	= 8
_____	+	_____	= 8
_____	+	_____	= 8
_____	+	_____	= 8
_____	+	_____	= 8
_____	+	_____	= 8
_____	+	_____	= 8
_____	+	_____	= 8
_____	+	_____	= 8

9

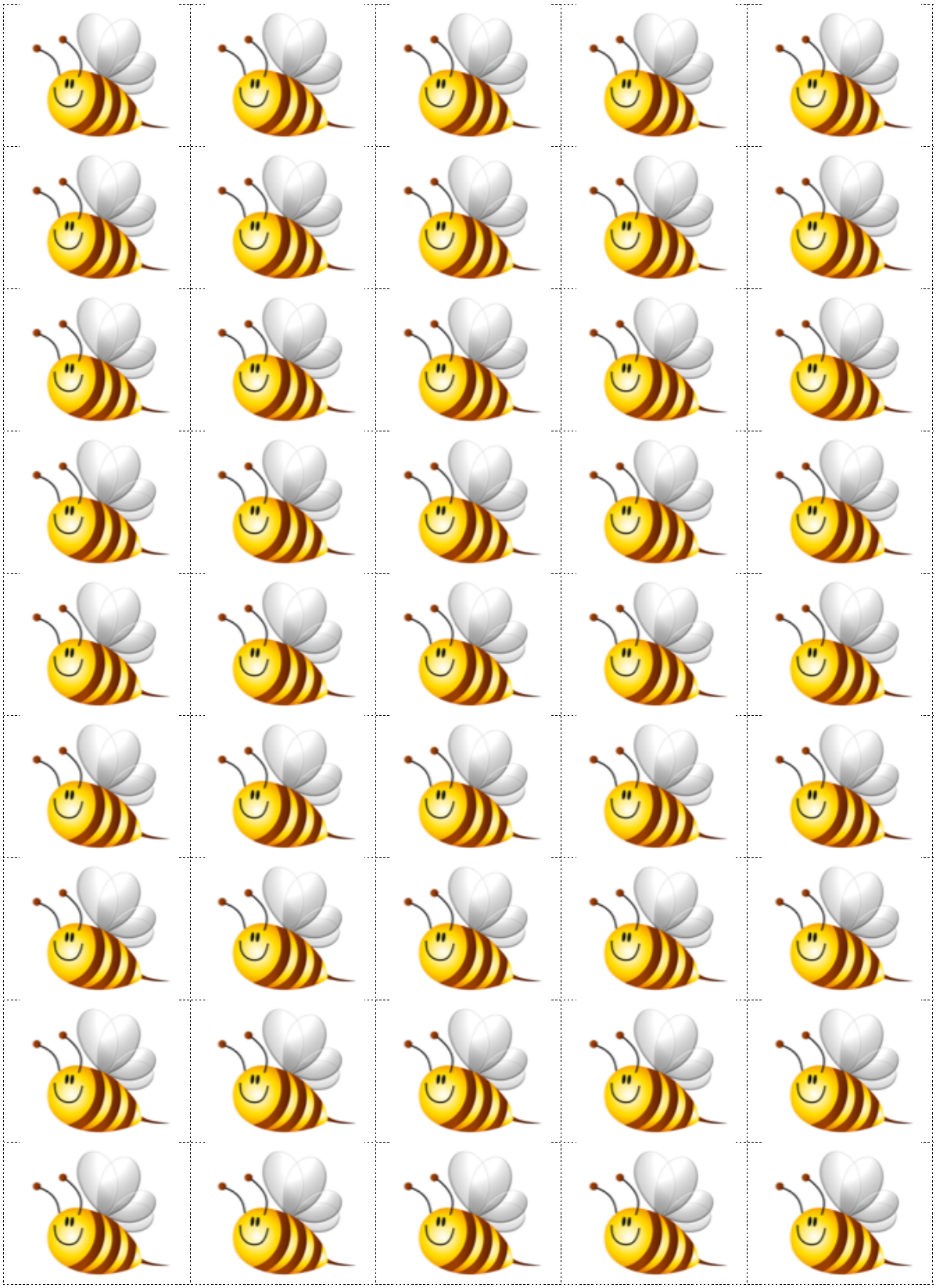
Nine bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree	
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9

10

Ten bear cubs are curled up in the cave or are climbing the tree.

Number of bear cubs curled up in the cave		Number of bear cubs climbing the tree	
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10



1

One bee is busy in the hive or is buzzing around the flowers.

Number of bees busy in the hive

Number of bees buzzing around the flowers

_____ + _____ = 1

_____ + _____ = 1

2

Two bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive

Number of bees buzzing around the flowers

_____ + _____ = 2

_____ + _____ = 2

_____ + _____ = 2

3

Three bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive

Number of bees buzzing around the flowers

_____ + _____ = 3

_____ + _____ = 3

_____ + _____ = 3

_____ + _____ = 3

4

Four bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive

Number of bees buzzing around the flowers

_____ + _____ = 4

_____ + _____ = 4

_____ + _____ = 4

_____ + _____ = 4

_____ + _____ = 4

5

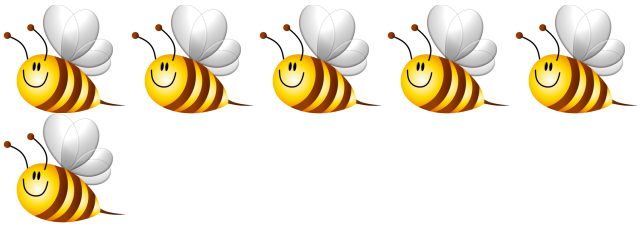
Five bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive

Number of bees buzzing around the flowers

_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5

6



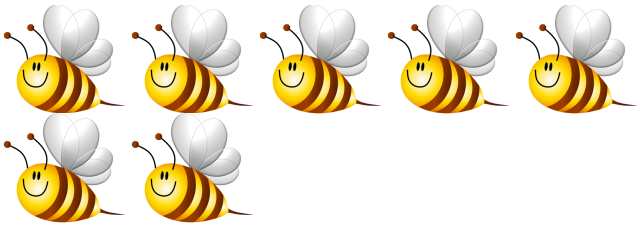
Six bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive

Number of bees buzzing around the flowers

_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6

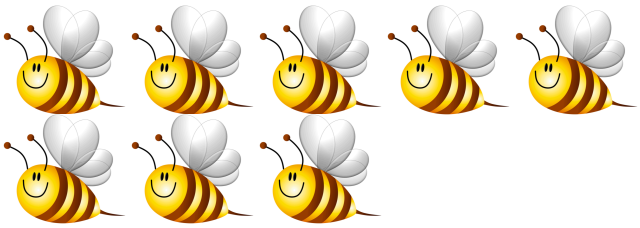
7



Seven bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive		Number of bees buzzing around the flowers		
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7

8



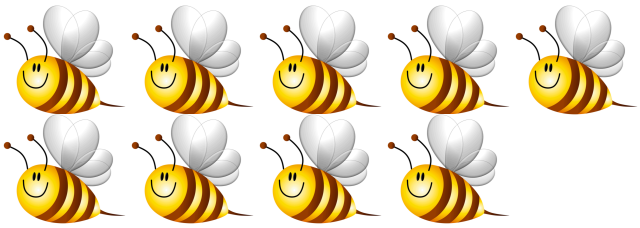
Eight bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive

Number of bees buzzing around the flowers

_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8

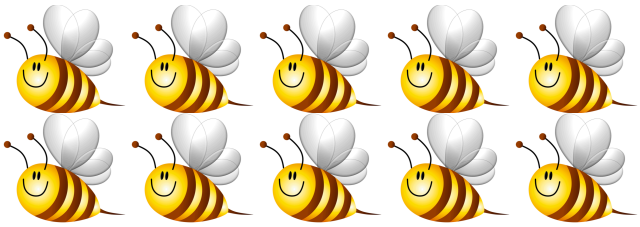
9



Nine bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive		Number of bees buzzing around the flowers	
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9

10



Ten bees are busy in the hive or are buzzing around the flowers.

Number of bees busy in the hive		Number of bees buzzing around the flowers	
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10

1

One duck is swimming
in the pond or
is waddling in the grass.

Number of ducks
swimming
in the pond

Number of ducks
waddling
in the grass

_____ + _____ = 1

_____ + _____ = 1

2

Two ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond

Number of ducks waddling in the grass

_____ + _____ = 2

_____ + _____ = 2

_____ + _____ = 2

3

Three ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond

Number of ducks waddling in the grass

_____ + _____ = 3

_____ + _____ = 3

_____ + _____ = 3

_____ + _____ = 3

4

Four ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond

Number of ducks waddling in the grass

_____ + _____ = 4

_____ + _____ = 4

_____ + _____ = 4

_____ + _____ = 4

_____ + _____ = 4

5

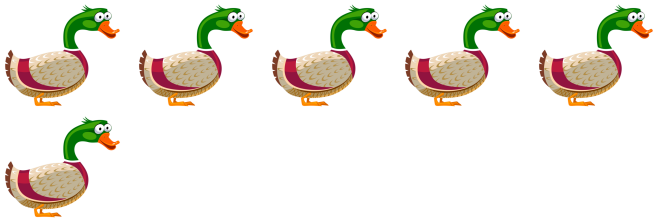
Five ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond

Number of ducks waddling in the grass

_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5

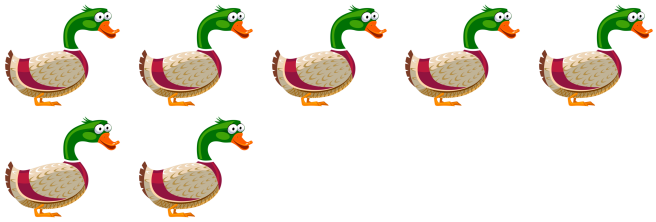
6



Six ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond		Number of ducks waddling in the grass		
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6

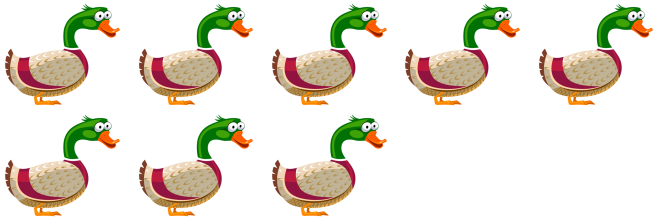
7



Seven ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond		Number of ducks waddling in the grass		
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7

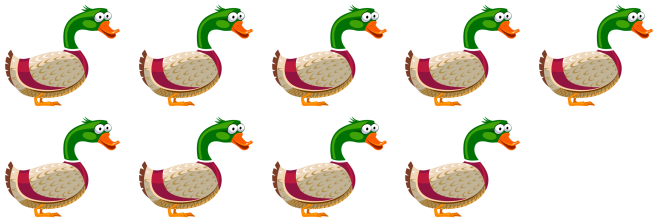
8



Eight ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond		Number of ducks waddling in the grass		
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8

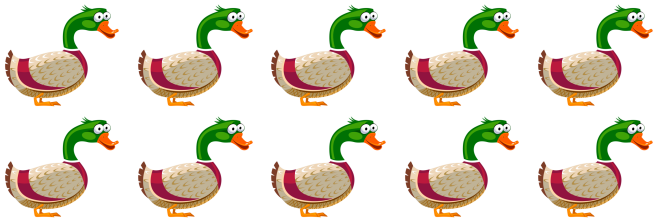
9



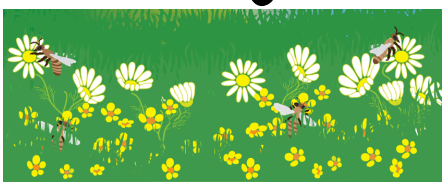
Nine ducks are swimming in the pond or are waddling in the grass.

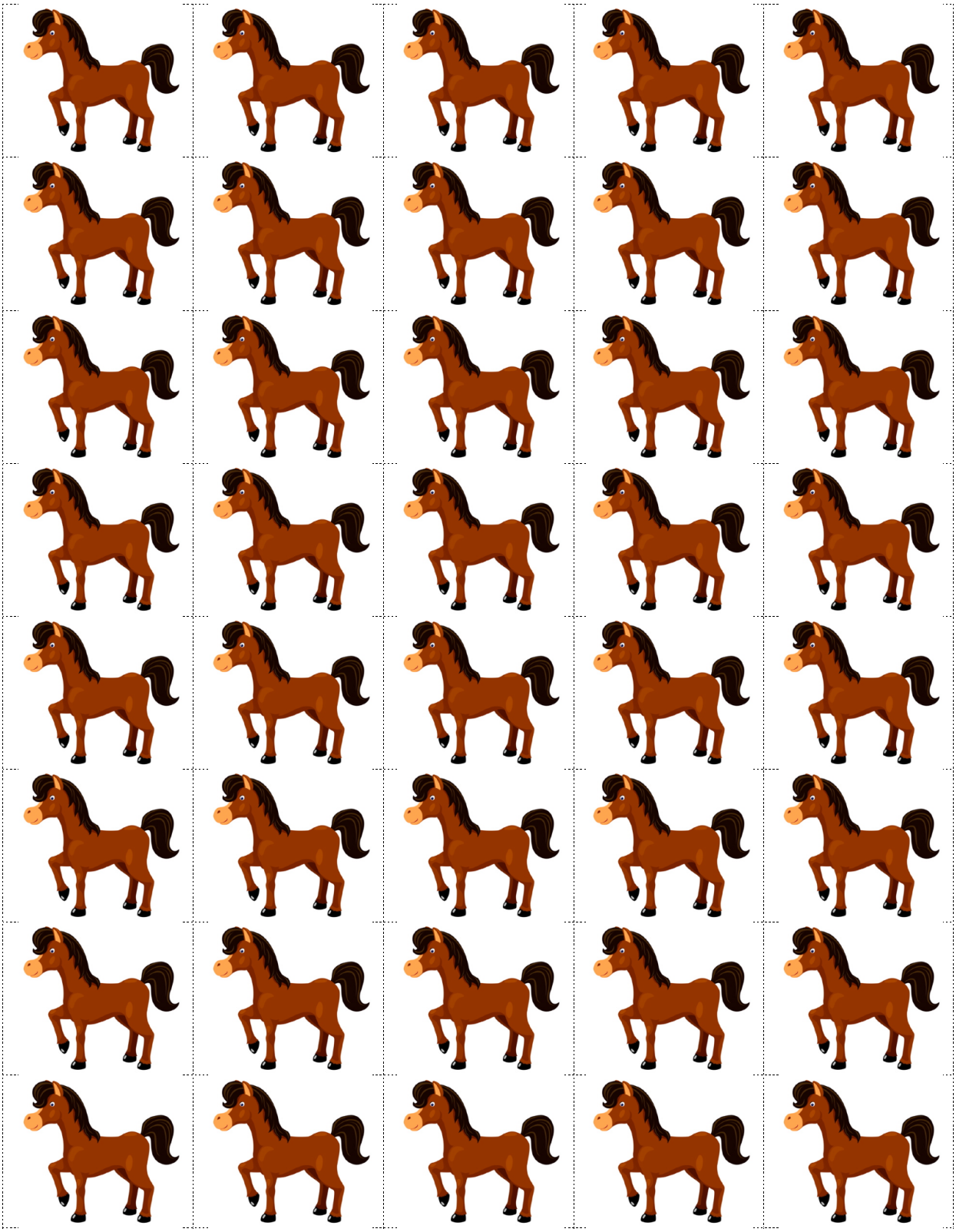
Number of ducks swimming in the pond		Number of ducks waddling in the grass	
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9

10



Ten ducks are swimming in the pond or are waddling in the grass.

Number of ducks swimming in the pond		Number of ducks waddling in the grass	
			
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10



1

One pony is prancing
in the pasture or
is standing in the stable.

Number of ponies prancing in the pasture

Number of ponies standing in the stable

_____ + _____ = 1

_____ + _____ = 1

2

Two ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture

Number of ponies standing in the stable

_____ + _____ = 2

_____ + _____ = 2

_____ + _____ = 2

3

Three ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture		Number of ponies standing in the stable		
_____	+	_____	=	3
_____	+	_____	=	3
_____	+	_____	=	3
_____	+	_____	=	3

4

Four ponies are prancing in the pasture or are standing in the stable.

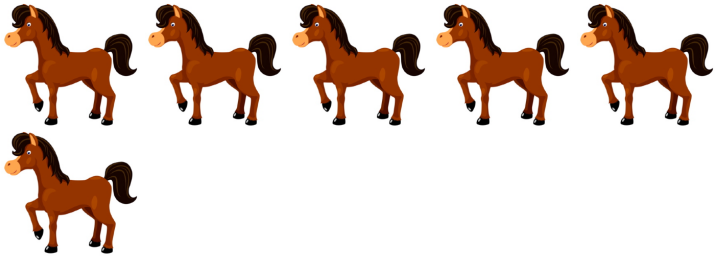
Number of ponies prancing in the pasture		Number of ponies standing in the stable		
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4

5

Five ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture		Number of ponies standing in the stable		
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5

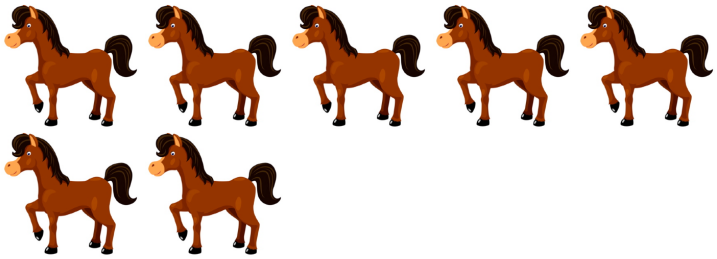
6



Six ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture		Number of ponies standing in the stable		
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6

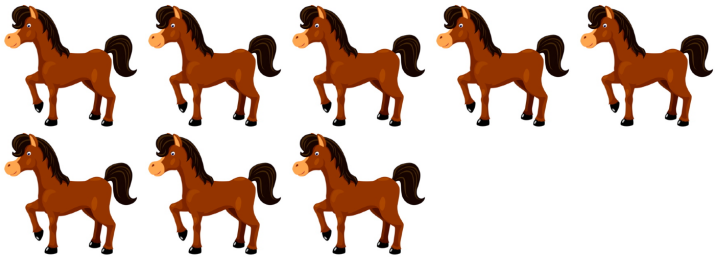
7



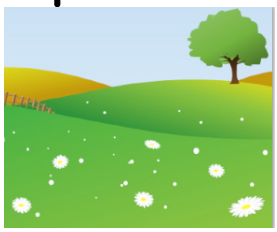
Seven ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture		Number of ponies standing in the stable		
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7

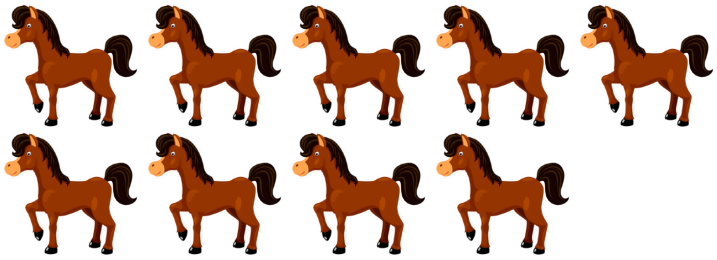
8



Eight ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture		Number of ponies standing in the stable		
				
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8

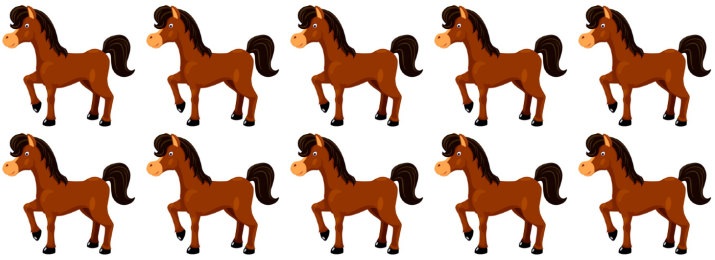
9



Nine ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture		Number of ponies standing in the stable	
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9
_____	+	_____	= 9

10



Ten ponies are prancing in the pasture or are standing in the stable.

Number of ponies prancing in the pasture		Number of ponies standing in the stable	
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10

1

One turtle is swimming in the stream or is lounging on the log.

Number of turtles swimming in the stream

Number of turtles lounging on the log

_____ + _____ = 1

_____ + _____ = 1

2

Two turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream

Number of turtles lounging on the log

_____ + _____ = 2

_____ + _____ = 2

_____ + _____ = 2

3

Three turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream

Number of turtles lounging on the log

_____ + _____ = 3

_____ + _____ = 3

_____ + _____ = 3

_____ + _____ = 3

4

Four turtles are swimming in the stream or are lounging on the log.

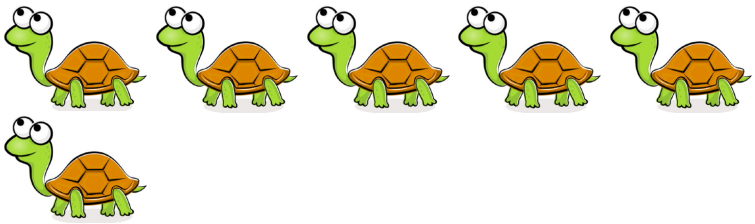
Number of turtles swimming in the stream		Number of turtles lounging on the log		
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4
_____	+	_____	=	4

5

Five turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream		Number of turtles lounging on the log		
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5
_____	+	_____	=	5

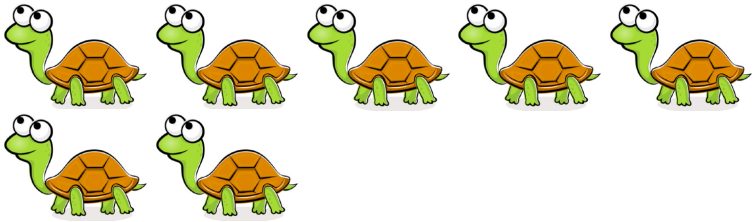
6



Six turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream		Number of turtles lounging on the log		
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6
_____	+	_____	=	6

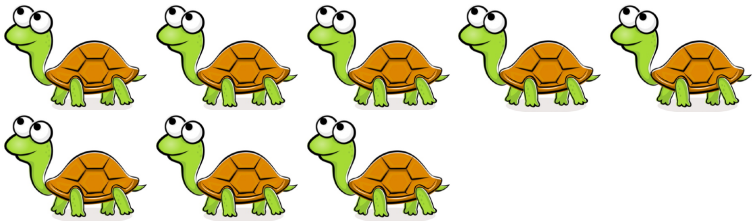
7



Seven turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream		Number of turtles lounging on the log		
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7
_____	+	_____	=	7

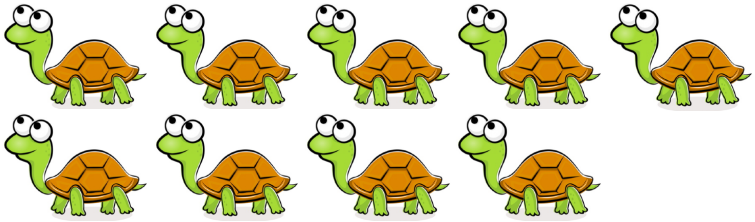
8



Eight turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream		Number of turtles lounging on the log		
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8
_____	+	_____	=	8

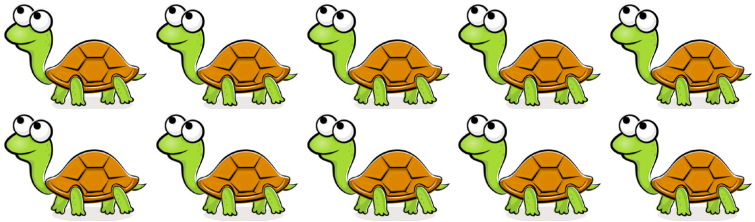
9



Nine turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream		Number of turtles lounging on the log		
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9
_____	+	_____	=	9

10

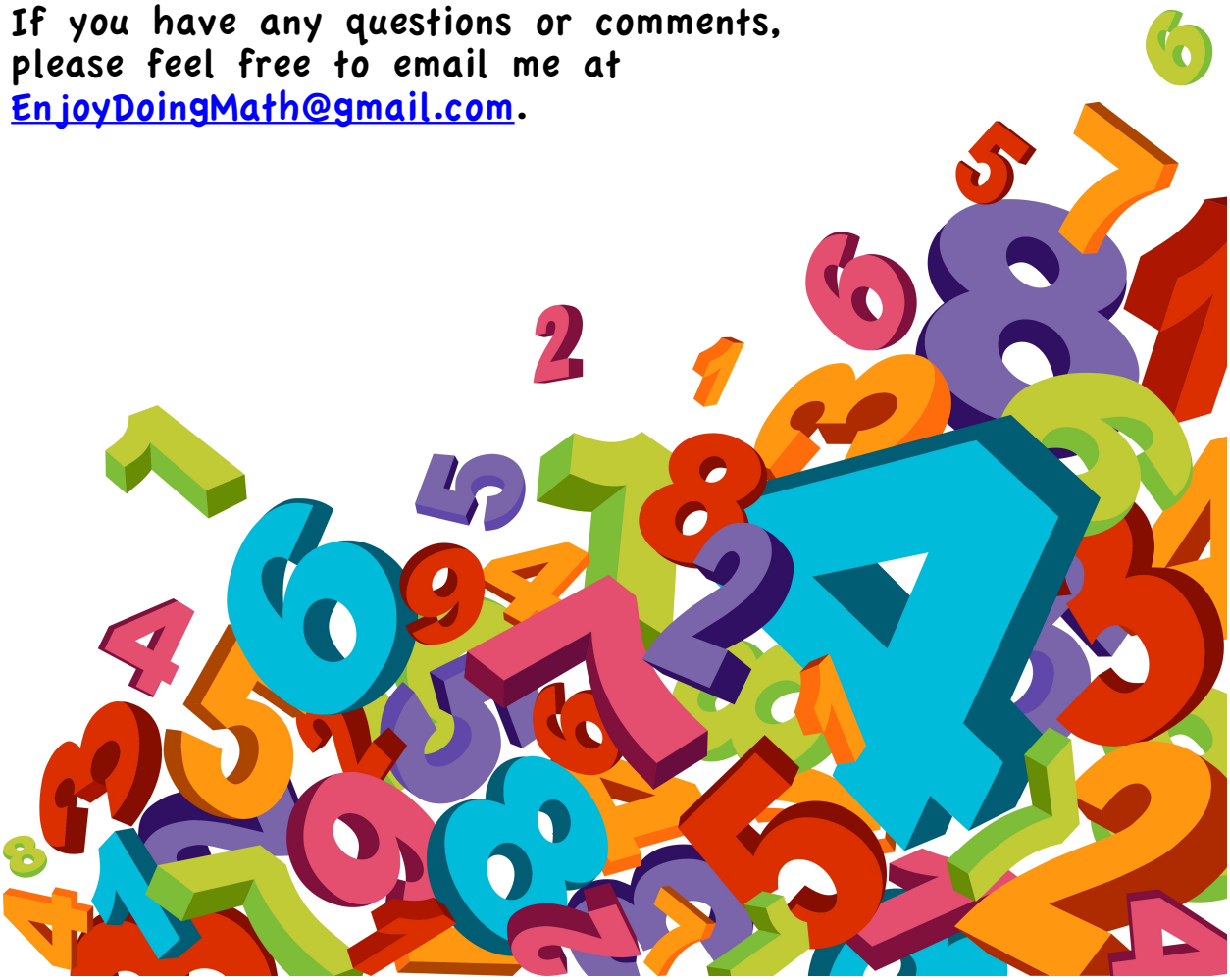


Ten turtles are swimming in the stream or are lounging on the log.

Number of turtles swimming in the stream		Number of turtles lounging on the log	
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10
_____	+	_____	= 10

I hope you and your students enjoy doing these activities! If you want additional scenes for this same decomposing activity, I have two more sets posted at my TpT store. One set has a party theme and the other has different modes of transportation.

If you have any questions or comments, please feel free to email me at EnjoyDoingMath@gmail.com.



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